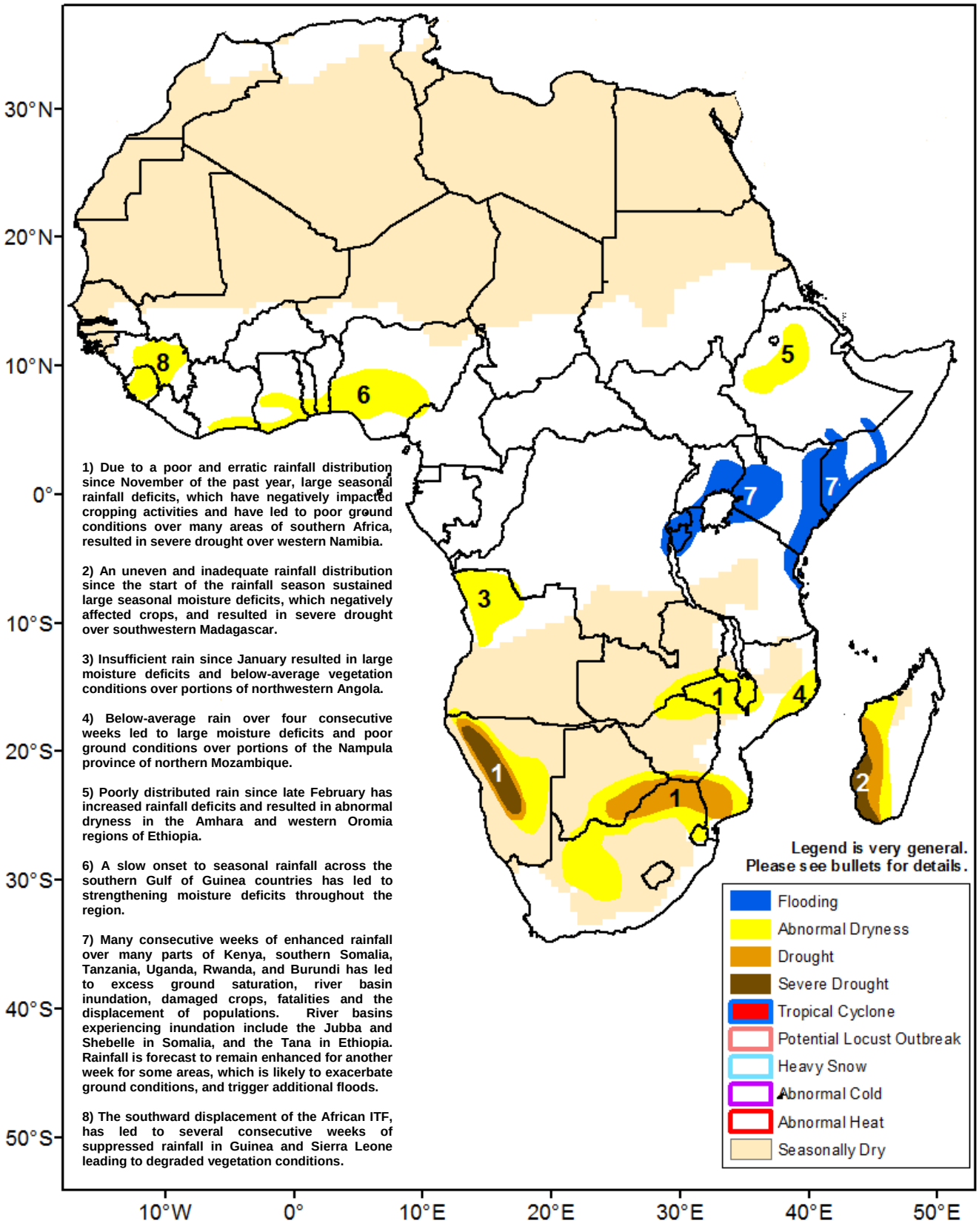
Climate Prediction Center's Africa Hazards Outlook
May 10 – May 16, 2018

- **Enhanced, flood inducing rains continue throughout many areas of Somalia and Kenya to begin May.**



1) Due to a poor and erratic rainfall distribution since November of the past year, large seasonal rainfall deficits, which have negatively impacted cropping activities and have led to poor ground conditions over many areas of southern Africa, resulted in severe drought over western Namibia.

2) An uneven and inadequate rainfall distribution since the start of the rainfall season sustained large seasonal moisture deficits, which negatively affected crops, and resulted in severe drought over southwestern Madagascar.

3) Insufficient rain since January resulted in large moisture deficits and below-average vegetation conditions over portions of northwestern Angola.

4) Below-average rain over four consecutive weeks led to large moisture deficits and poor ground conditions over portions of the Nampula province of northern Mozambique.

5) Poorly distributed rain since late February has increased rainfall deficits and resulted in abnormal dryness in the Amhara and western Oromia regions of Ethiopia.

6) A slow onset to seasonal rainfall across the southern Gulf of Guinea countries has led to strengthening moisture deficits throughout the region.

7) Many consecutive weeks of enhanced rainfall over many parts of Kenya, southern Somalia, Tanzania, Uganda, Rwanda, and Burundi has led to excess ground saturation, river basin inundation, damaged crops, fatalities and the displacement of populations. River basins experiencing inundation include the Jubba and Shebelle in Somalia, and the Tana in Ethiopia. Rainfall is forecast to remain enhanced for another week for some areas, which is likely to exacerbate ground conditions, and trigger additional floods.

8) The southward displacement of the African ITF, has led to several consecutive weeks of suppressed rainfall in Guinea and Sierra Leone leading to degraded vegetation conditions.

Dryness has shifted west in Ethiopia while flooding continues in other parts of the greater horn

During the last 7 days, two areas of heavy rains emerged across East Africa. One included coastal regions of Tanzania, Kenya and southern Somalia. The other included western regions of Kenya and Uganda. According to satellite estimates, 7-day rainfall totals topped out at over 150mm in coastal Kenya and Somalia, and more than 100mm in western Kenyan and Uganda (**Figure 1**). Between these areas of enhanced precipitation was a corridor through Kenya where little rain was observed. Scattered moderate rains continued over southern and western areas of Ethiopia as well as in South Sudan. A normal pattern of rainfall for the first week of May was observed in Yemen. Continuing heavy rains reinforced widespread flooding issues and fatalities in many parts of Kenya and along the Jubba and Shebelle river basins this week.

Through the end of April, the character of the rainfall anomalies changed across Ethiopia. Previously dry areas, including the Belg-producing areas of central Ethiopia, saw increased rains and a reduction in deficits, while areas in western Ethiopia have seen a delayed and poor onset to rains. 30-day moisture deficits in this area have grown over the last couple of weeks and now exceed 50mm (**Figure 2**) and less than 50% of normal. Concurrently, vegetation health has degraded rapidly as evidenced by the vegetation health index. It should be kept in mind that this region has a long rainfall season leaving much time for recovery.

Further south, extremely large seasonal moisture surpluses (100-300+mm) continue to encompass much of Kenya and northern Tanzania due to heavy rainfall during March and April. The majority of areas in in Southern Ethiopia, Kenya and Tanzania have already received more than their average seasonal rainfall through the end of May according to the SPP product.

For the upcoming outlook period, models suggest the continuation of heavy rainfall over western Kenya, Rwanda and Burundi. Other areas that favor enhanced rains include South Sudan, northern Somalia and eastern Ethiopia. Only lighter rains are likely in north-central Ethiopia and Yemen.

Delayed onset of rains observed across southern Gulf of Guinea countries.

Since early April, light and poorly distributed rainfall amounts have been observed over southern Cote d'Ivoire, Ghana, Togo, Benin, and southern Nigeria according to satellite rainfall estimates. During the previous 7 days, suppression of rains continued across most of the region. However, parts of northern Cote d'Ivoire received slightly above-normal rainfall, and north-central Nigeria received much-above average rain. Satellites estimate that more than 200mm of rain may have fallen, and a gauge measured 198mm. Elsewhere, in Guinea and Sierra Leone, suppressed rain during the last several weeks has led to significant moisture deficits and rapidly degrading vegetation health.

During the next week, above-normal rainfall is favored by models in Nigeria, Togo, and Benin, possibly improving moisture deficits in those countries. At the same time, suppression of rains is forecasted to persist over Sierra Leone, Guinea and southern Mali, further worsening conditions in that region.

Satellite Estimated Total Rainfall (mm)
Valid: May 02 – May 08, 2018

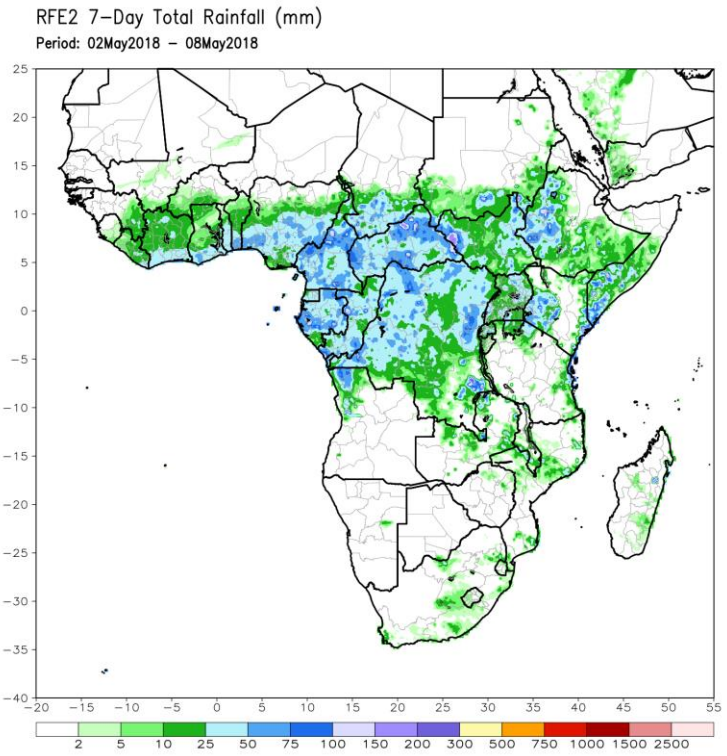


Figure 1: NOAA/CPC

Satellite Estimated Rainfall Anomaly (mm)
Valid: April 9 – May 08, 2018

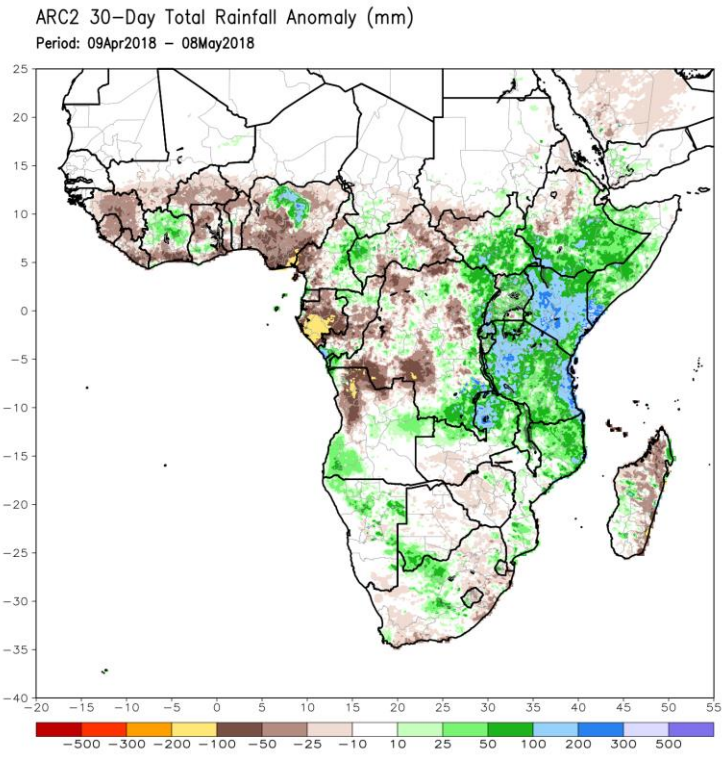


Figure 2: NOAA/CPC

Note: The hazards outlook map on page 1 is based on current weather/climate information and short and medium range weather forecasts (up to 1 week). It assesses their potential impact on crop and pasture conditions. Shaded polygons are added in areas where anomalous conditions have been observed. The boundaries of these polygons are only approximate at this continental scale. This product does not reflect long range seasonal climate forecasts or indicate current or projected food security conditions.

Questions or comments about this product may be directed to Wassila.Thiaw@noaa.gov or 1-301-683-3424.